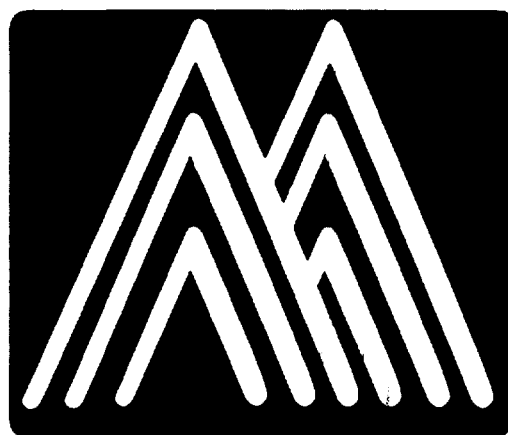


## POOR LEGIBILITY

ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ  
DUE TO THE QUALITY OF THE ORIGINAL

**El Monte Operable Unit  
San Gabriel Valley  
Los Angeles County, California**

**Maness Project No. 51298**



**M A N E S S**  
C O R P O R A T I O N

---

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FOURTH  
~~THIRD~~ QUARTER 1997  
GROUNDWATER MONITORING REPORT

El Monte Operable Unit  
San Gabriel Valley  
Los Angeles County, California

Maness Project No. 51298

Prepared For:  
*Crown City Plating Company*  
*4350 Temple City Boulevard, El Monte, California 91731*

Prepared By:  
*Maness Corporation*  
*1101 East Spring Street, Long Beach, California 90806*

January 22, 1998



January 22, 1998

**Maness Project No. 51298**

Mr. Larry Donovan  
Crown City Plating Co.  
4350 Temple City Boulevard  
El Monte, California 91731

**RE: Report of Third Quarter 1997, Groundwater Monitoring at El Monte  
Operable Unit, San Gabriel Valley, Los Angeles County, California**

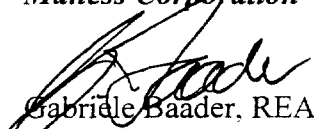
Dear Mr. Donovan:

Enclosed please find Maness Corporation (Maness) third quarter 1997, groundwater monitoring report completed at the above referenced site.

In order to complete quarterly groundwater monitoring activities, Maness performed the following: (1) measured fluid levels, (2) purged and collected groundwater samples from two wells, (3) prepared a report summarizing field activities and laboratory analytical results.

If you have any questions or require additional information, please feel free to call me at (562) 595-4555.

Sincerely,  
*Maness Corporation*

  
Gabriele Baader, REA  
Project Manager

cc: Bella Dizon, U.S. Environmental Protection Agency  
Art Heath, Regional Water Quality Control Board (Los Angeles Region)  
Sharon Wallen, Camp Dresser & McKee, Inc.  
Kathryn Quinn, CH2MHILL

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Appendix A - Groundwater Sampling Logs

Appendix B Laboratory and Quality Assurance/Quality Control Reports and Chain-of-Custody Records

Appendix C - Summary of Groundwater Laboratory Analytical Results

## 1.0 INTRODUCTION

This Third Quarter 1997, Groundwater Monitoring Report has been prepared by Maness Corporation (Maness) on behalf of the Crown City Plating Company (CCPC) for the CCPC site located at the El Monte Operable Unit, San Gabriel Valley, Los Angeles County, California (*Figure 1* and *Figure 2*).

### 1.1 PURPOSE AND SCOPE OF WORK

In order to complete groundwater monitoring activities, Maness performed the following: (1) measured fluid levels, (2) purged and collected groundwater samples from two wells, (3) prepared a report summarizing field activities and laboratory analytical results.

The objective of sampling monitoring wells MW2-3 and MW2-4 was to provide data to assess aquifer characteristics, groundwater flow direction and chemical quality of groundwater at the water table in the vicinity of the monitor wells.

### 1.2 BACKGROUND

The CCPC site is located in an industrial area in the western section of the City of El Monte, Los Angeles County, California. CCPC is located north of Valley Boulevard, south of Lower Azusa Road, east of Temple City Boulevard and west of Baldwin Avenue. The site occupies approximately 13 acres of land. Most of the site is owned by CCPC, the southernmost portion of the site is owned by Southern-Pacific Transportation Company (Southern-Pacific) and leased to CCPC. The site is located at the El Monte Operable Unit within the San Gabriel Valley Area 1 Superfund Site, as defined by EPA.

CCPC has operated a metal plating facility at the site since 1956. In 1977, CCPC leased a portion of the site from Southern-Pacific. Chemicals historically used at the site, as documented by EPA, included 1,1,1-Trichloroethane (1,1,1-TCA), toluene, wash thinner, cutting oil, sulfuric acid, nitric acid and sodium hydroxide.

VOCs have been detected at concentrations exceeding maximum contaminant levels (MCLs) in groundwater and in the San Gabriel Valley since 1979. In May 1984, the EPA assigned four areas of contamination located within the San Gabriel Valley to the National Priorities List. The CCPC is located within the El Monte Operable Unit, which is within an EPA Remedial Investigation Area where groundwater clean-up efforts are currently being focused.

Based on the analytical results of previous groundwater and soil investigations of areas in the vicinity of the site, several potentially hazardous chemical compounds have been identified: trichloroethylene (TCE), perchloroethylene (PCE), 1,1-dichloroethylene (1,1-DCE) and 1,1,1-trichloroethane (TCA).

In May 1990, the EPA issued a Notice of Potential Liability for the San Gabriel Valley Superfund sites to CCPC. In March 1995, the EPA submitted a Statement of Work to the Northwest El Monte Community Task Force as a basis for implementing an interim Remedial Investigation/Feasibility Study (RI/FS). This Statement of Work included specific locations for new monitoring wells to be installed as part of the overall interim RI/FS. A Special Notice was issued to CCPC on October 7, 1994.

On May 31, 1995, EPA issued a Unilateral Order to CCPC to independently sponsor the development and testing of two shallow groundwater monitoring wells included in the original Statement of Work submitted to the Northwest El Monte Community Task Force.

## 2.0 FIELD ACTIVITIES

### 2.1 GROUNDWATER WELL PURGING AND SAMPLING

On December 1, 1997, a Maness geologist collected groundwater samples from monitoring wells MW2-3 and MW2-4, respectively. Prior to purging and sampling, the depths to groundwater in the monitoring wells were measured using a Solinst electric sounding tape to determine the static water level, and hydraulic direction and gradient. This tape is specifically designed for use in sounding groundwater monitoring wells.

The Maness geologist purged the wells using a portable stainless steel Grundfos environmental electric submersible pump prior to the collection of the groundwater samples. During the purging of each well, the geologist periodically measured groundwater characteristics and recorded pH levels, temperature, conductivity, turbidity and pump rate readings (*Appendix A* - Groundwater Sampling Logs). After the removal of three times the well casing volume of water, enough time was allowed for groundwater to recharge to at least 80% of the measured static water level prior to the collection of water samples.

As required by the EPA, Maness recovered groundwater samples with a non-dedicated portable stainless steel Grundfos electric submersible pump and dedicated Teflon-lined sample tubing. The groundwater samples were collected from the pump discharge tubing and transferred into 40 ml VOA vials. Maness also obtained groundwater samples prior to purging MW2-4 with a bottom-emptying, polyethylene bailer. Well water from the bailer was also transferred into 40 ml VOA vials. The vials were labeled, sealed with custody seals and immediately placed on ice in a cooler until submitted to a state-certified laboratory for analysis (VOC Analytical Laboratories, Inc. of Glendale, California). In addition, Maness collected rinsate blanks from the pump before and after purging MW2-4. Trip blanks were obtained from the laboratory. Refer to *Appendix B* for a copy of laboratory and quality assurance/quality control (QA/QC) reports and chain-of-custody records.

Maness followed standard sampling procedures as outlined in the Field Sampling Plan by Hargis & Associates, Inc. dated November 6, 1995. The Grundfos pump was decontaminated prior to sampling by submerging in a non-phosphate detergent and tap water solution, and rinsed by pumping approximately 10 pump volumes of both tap water and distilled water through the mechanism. The exterior of the pump was rinsed with distilled water. All liquids generated during purging activities were recovered into 55-gallon DOT approved drums (80 gallons). CCPC transported the drums to their facility for recycling.

### **3.0 LABORATORY TESTING**

#### **3.1 METHOD OF ANALYSIS**

Groundwater samples were collected, maintained, and prepared in accordance with Test Methods for Evaluating Solid Waste, (SW-846), Third Edition, Update #2, November 1990. These methods, as prescribed by the Environmental Protection Agency (EPA), provide test procedures which determine whether the sample is a hazardous waste.

VOC Analytical Laboratories, Inc. of Glendale, California, analyzed the groundwater samples for halocarbons using EPA Method 8010; and volatile aromatics and methyl-tert-butyl ether using EPA Method 8020.

#### **3.2 CLEAN-UP CRITERIA**

Clean-up levels for volatile organics in groundwater are based on the California Drinking Water Standards (CDWS). They are as follows:

- Ethylbenzene = 700 parts per billion (ppb)
- Benzene = 1 ppb
- Toluene = 150 ppb
- Tetrachloroethene = 5 ppb
- Total Xylene Isomers = 1,750 ppb

#### **3.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS**

Benzene (3.1 ppb at MW2-4 and 2.3 ppb at MW2-3) was the only VOC above MCLs stated in CDWS.



*Figure 2* is a site map showing groundwater monitoring well locations with a summary of the sample analytical results. *Table 1* summarizes the groundwater analytical results from the third quarter sampling event. The laboratory reports and chain-of-custody records for the groundwater sampling have been included in *Appendix B*. A summary of previous sampling events is summarized in *Appendix C*.

TABLE 1

SUMMARY OF GROUNDWATER LABORATORY ANALYSIS  
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION  
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA  
SAMPLE DATE - 12/01/97

Analytes (ppb)	EPA Method	MW2-3 (ppb)	MW2-4* (ppb)	MW2-4 (ppb)	R1 (ppb)	R2 (ppb)	MCL (ppb)
Benzene	8020	<b>2.3</b>	ND	<b>3.1</b>	<b>5.2</b>	<b>2.9</b>	1
Bromoform	8010	ND	ND	ND	2.0	ND	Unregulated
Bromodichloromethane	8010	ND	ND	ND	1.1	ND	Unregulated
Chloroform	8010	ND	ND	ND	ND	ND	Unregulated
Dibromochloromethane	8010	ND	ND	ND	2.5	ND	Unregulated
Ethylbenzene	8020	2.5	ND	3.0	4.2	3.0	700
MTBE	8020	ND	ND	ND	ND	ND	Unregulated
Toluene	8020	4.1	ND	5.1	7.5	4.5	150
Tetrachloroethene	8010	0.61	ND	ND	ND	ND	5
Total Xylenes	8020	14	ND	16	22	16	1,750
Trichloroethene	8010	ND	ND	ND	ND	ND	Unregulated

Notes:

- ppb = parts per billion ( $\mu\text{g/L}$ )
- MCL = primary and secondary maximum contaminant levels. California Drinking Water Standards (1994)
- ND = not detected at or above laboratory detection limits
- bold** = above MCL
- R1 = rinsate sample before purging MW2-4
- R2 = rinsate sample after purging MW2-4
- MW2-4\* = sample taken before purging
- MTBE = methyl-tert-butyl ether

Remaining analytes ND

#### 4.0 SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located in the northeastern block portion of the Los Angeles Basin. The northeastern block is situated between the Whittier fault zone and the base of the San Gabriel Mountains and is separated from the northwestern block by the Raymond Hill fault. This block is a deep synclinal basin that contains mostly marine Cenozoic sedimentary rocks, but includes some thick Miocene volcanic rocks in the east. The basement lies as much as 12,000 feet below the surface in the central part of the San Gabriel Valley, and in the eastern Puente Hills more than 22,000 feet of Cenozoic sedimentary rock covers the basement (from: *Geology of California*, Robert M. Norris and Robert W. Webb, 1990).

The subject site overlies alluvial sediments consisting of mainly moderate yellowish brown, medium- to coarse-grained sand to very dark grayish brown, fine-grained silty sand. The surrounding topography is consistently flat.

According to the Los Angeles County Department of Public Works (DPW) hydrologic records, the first recorded groundwater for the surrounding area as of April 30, 1996, is approximately 37.8 feet below land surface with a ground surface elevation of approximately 256.5 feet above mean sea level (MSL) (DPW Well 2942G, located at the intersection of Flair Drive and Strang Avenue, approximately ¼ mile southeast of monitor well MW2-3 and ¼ mile southwest of monitor well MW2-4).

Maness encountered groundwater in monitoring wells MW2-3 and MW2-4 at 35.15 and 39.46 feet below grade (ft bg), respectively, during the sampling event in December 1997. During the field investigation in September 1997, Maness encountered groundwater in monitoring wells MW2-3 and MW2-4 at 34.70 and 38.34 ft bg, respectively. In order to determine the exact depth to groundwater with respect to mean sea level, Gilbert Engineering of Cypress, California, surveyed the top of each well casing on February 21, 1997.

**TABLE 2**

**SUMMARY OF GROUNDWATER DEPTHS  
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION  
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA**

Well No.	Date	Well Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW2-3	5/29/97	257.045	34.30	222.75
	9/4/97		34.70	222.35
	12/1/97		35.15	221.90
MW2-4	5/29/97	264.30	37.40	226.90
	9/4/97		38.34	225.96
	12/1/97		39.46	224.84

**5.0 CONCLUSIONS**

Maness has completed the Third Quarter 1997, groundwater monitoring activities in El Monte and Rosemead, Los Angeles County, California for Crown City Plating Company located at 4350 Temple City Boulevard in El Monte, California. Groundwater monitoring assessed the groundwater quality associated with the El Monte Operable Unit (OU) area in the San Gabriel Valley, Los Angeles County, California.

Maness purged and sampled two groundwater monitoring wells in the southernmost portion of the El Monte OU. Benzene (3.1 ppb at MW2-4 and 2.3 ppb at MW2-3) was the only compound above MCL stated in CDWS. However, benzene was not detected in MW2-4 when sampled prior to purging.

Halocarbons and volatile aromatic concentrations have decreased since the last sampling event. Chloroform and trichloroethene compounds were not detected at or above laboratory detection limits.

Based on previous sampling events and the results of Third Quarter 1997, Maness recommends continuation of quarterly groundwater monitoring events.

## 6.0 LIMITATIONS

Maness Corporation (Maness) performs professional services using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings are based primarily upon analytical results provided by an independent laboratory. Interpretations of the subsurface conditions at the site, for the purpose of this investigation, are made from a limited number of available data points (example: groundwater samples) and subsurface conditions may be different in other locations. No warranty, expressed or implied, is made as to the professional recommendations in our reports.

Maness appreciates the opportunity to provide environmental management services for Crown City Plating Co. If you have any questions regarding the report or require additional information, please call us at (562) 595-4555.

Sincerely,

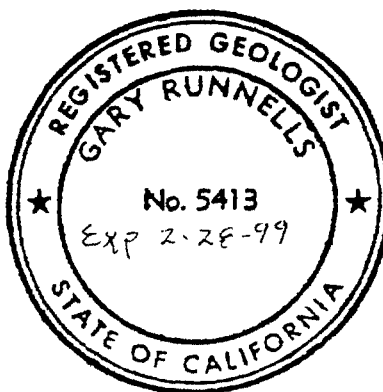
**Maness Corporation**



Jeff Engels  
Geologist

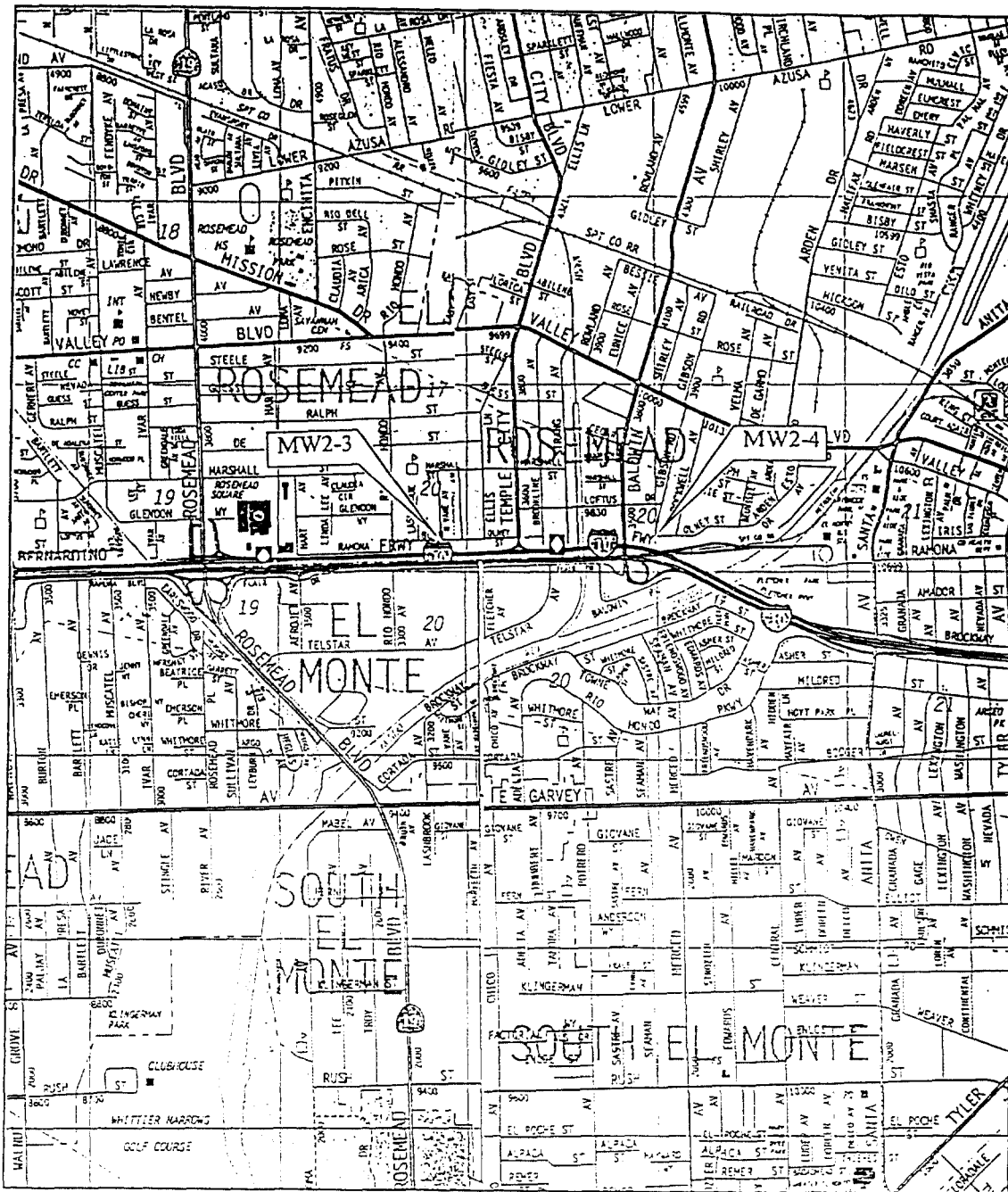


Gary Runnells, RG, REA  
Manager, Remediation Services

  
Gabriele Baader, REA  
Project Manager

\\crownpc\c\crwn0198.qfm

## FIGURES



#### REFERENCE

Thomas Bros. Maps  
The Thomas Guide, 1997  
Los Angeles Orange Counties  
p. 596, I-7, 597, A-7

#### FIGURE 1 VICINITY MAP

*El Monte Operable Unit*  
*San Gabriel Valley*  
Los Angeles County, California



**MANESS**  
CORPORATION

A DIVISION OF  
MANESS INDUSTRIES

111 EAST SPANG STREET, P.O. BOX 9974, LONG BEACH, CA 90801-0974  
TELEPHONE (562) 599-0111 FAX (562) 592-0111

~ 3,000 FEET

**MW2-3**

WELL BOX ELEV. = 257.045'  
DEPTH TO GW = 35.15'  
GW ELEV. = 221.90'

BENZENE = 2.3 PPB  
ETHYLBENZENE = 2.5 PPB  
TOLUENE = 4.1 PPB  
TOTAL XYLENE ISOMERS = 14 PPB  
TETRACHLOROETHENE = 0.61 PPB  
REMAINING HALOCARBONS AND  
VOLATILE AROMATICS = ND

**MONITORING WELL MW2-3  
ROSEMEAD, CA**

**MONITORING WELL MW2-4  
EL MONTE, CA**

**GIBSON ROAD**

**APARTMENT  
BUILDING**

**OLNEY STREET**

**BUSINESS**

**MW2-4**

WELL BOX ELEV. = 264.30'  
DEPTH TO GW = 39.46'  
GW ELEV. = 224.84'

BENZENE = 3.1 PPB  
ETHYLBENZENE = 3.0 PPB  
TOLUENE = 5.1 PPB  
TOTAL XYLENE ISOMERS = 16 PPB  
REMAINING HALOCARBONS AND  
VOLATILE AROMATICS = ND

*SINGLE  
FAMILY  
RESIDENCES*

**NORTH VANE  
AVENUE**

*SINGLE  
FAMILY  
RESIDENCES*

**OLNEY STREET**

*SINGLE  
FAMILY  
RESIDENCES*

*SINGLE  
FAMILY  
RESIDENCES*



DATE: 1/8/98  
PROJECT NUMBER: 51298

0 30 60  
APPROXIMATE SCALE IN FEET

DRAWN BY: RONALD SANTOS

CHECKED BY: GABRIEL BAADER

APPROVED BY: GARY RUNNELLS

**FIGURE 2**

SITE MAP WITH GROUNDWATER  
MONITOR WELL LOCATIONS  
EL MONTE OPERABLE UNIT, SAN GABRIEL VALLEY  
LOS ANGELES COUNTY, CALIFORNIA



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1000 S. GILBERT STREET, EL MONTE, CA 91734  
CONTRACTOR LICENSE NO. 504671 (1995) FAX (626) 445-4400


**APPENDIX A**

**GROUNDWATER SAMPLING LOGS**



WELL No.  MW2-3	SITE NAME: CROWN CITY PLATING COMPANY  ADDRESS:  North Van Avenue & Olney Street, Rosemead, CA	DATE:  12/1/97	pH/Temp/Conductivity Meter:  Horiba U-10 Digital pH/Cond/Temp/Turb- Meter	Turbidimeter:  Horiba U-10 Digital pH/Cond/Temp/Turb- Meter
-----------------------	---	----------------------	---	---

## GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)	SOLUTION STANDARDS						
							pH		CONDUCTIVITY				
14:03		-start pump					BRAND NAME: CALITECH Auto-Cal pH: 4.0		BRAND NAME: CALITECH Auto-Calibration SOLUTION: Potassium Hydrogen Phthalate CONCENTRATION: 4.49 mS/cm				
14:07	<1	6.84	1.07	19.1	10	0.7	BRAND NAME: pH:						
14:14	5	6.78	1.22	21.1	6	0.6	BRAND NAME: pH:						
14:22	10	6.77	1.20	21.4	4	0.8	BRAND NAME: pH:						
14:28	15	6.78	1.22	21.3	10	0.6	INSTRUMENT CALIBRATION RECORD						
14:36	20	6.80	1.13	21.1	5	0.8							
14:43	25	6.78	1.19	21.3	7	0.7	pH		RECORDING:	CONDUCTIVITY (MOHS)			
14:52	30	6.84	1.12	20.6	8	0.6	START UP:	4		START UP:	RECORDING:		
14:58		-pump stops, wait for recharge						7		AUTO - CALIBRATION			
15:11		-start pump						10					
15:17	35	6.83	1.22	20.8	10	0.3	END:	4				END:	RECORDING:
15:25	38	6.79	1.17	21.2	3	0.05		7					
Remarks: Purged water at 5 gallons is slightly cloudy. At 38 gallons purged water is clear.								10					
							Depth to Bottom of Well: (feet) 54.24'		Relative Recharge Rate (circle one) slow <u>moderate</u> fast very fast				
Well Box Elevation (feet above mean sea level) 257.045'		Depth to Groundwater (feet) 35.15'		Groundwater Elevation (feet above mean sea level) 221.90'		Sampler Name: Jeff Engels Signature: <i>Jeff Engels</i>		 <b>MANESS CORPORATION</b> A DIVISION OF MANESS INDUSTRIES <small>1101 EAST SPRING STREET, P.O. BOX 90939, LONG BEACH, CA. 90809 CONTRACTOR LICENSE NO. 553633. (310) 595-4555 FAX (310) 492-6495</small>					

WELL No.  <b>MW2-4</b>	SITE NAME: <b>CROWN CITY PLATING COMPANY</b>  ADDRESS:  <i>Gibson Road &amp; Olney Street, El Monte, CA</i>	DATE:  <b>12/1/97</b>	pH/Temp/Conductivity Meter:  <i>Horiba U-10</i> Digital pH/Cond/Temp/Turb-Meter	Turbidimeter:  <i>Horiba U-10</i> Digital pH/Cond/Temp/Turb-Meter
------------------------------	--	-----------------------------	--	--

## GROUNDWATER SAMPLING LOG

Time	Volume Bailed (gallons)	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Pump Rate (gpm)	SOLUTION STANDARDS				
							pH		CONDUCTIVITY		
10:07		-start pump					BRAND NAME: CALITECH Auto-Cal pH: 4.0		BRAND NAME: CALITECH Auto-Calibration SOLUTION: Potassium Hydrogen Phthalate CONCENTRATION: 4.49 mS/cm		
10:26	<1	6.48	1.34	15.7	10	1.3	BRAND NAME: pH:				
10:30	5	6.74	1.26	20.3	10	1.3					
10:35	10	6.80	1.26	20.2	10	1.0					
10:41	15	6.82	0.939	18.1	10	0.8	BRAND NAME: pH:				
10:49	20	6.77	1.25	20.3	38	1.3					
10:54	25	6.82	1.23	19.0	59	1.0					
11:00	30	6.82	1.24	20.2	10	0.8	INSTRUMENT CALIBRATION RECORD				
11:08	35	6.71	1.24	20.3	16	0.6					
11:14	38	6.80	1.28	19.7	10	0.05					
							pH		RECORDING:	CONDUCTIVITY (MOHS)	
							START UP:	4		START UP:	RECORDING:
								7		NO - CALIBRATION	
								10			
							END:	4			

Remarks: Purged water at 5 gallons is slightly cloudy. Purged water at 38 gallons is clear.

Depth to Bottom of Well: (feet) **55.14'**      Relative Recharge Rate (circle one) **slow moderate fast very fast**

Well Box Elevation (feet above mean sea level)	Depth to Groundwater (feet)	Groundwater Elevation (feet above mean sea level)
264.30'	39.46'	224.84'

Sampler Name:  
**Jeff Engels**  
Signature: *Jeff Engels*



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MANESS INDUSTRIES  
1101 EAST SPRING STREET, P.O. BOX 90939, LONG BEACH, CA. 90809  
CONTRACTOR LICENSE NO. 353633. (310) 593-4333 FAX (310) 492-6495

**APPENDIX B**

**LABORATORY AND QUALITY ASSURANCE/QUALITY  
CONTROL (QA/QC) REPORTS AND  
CHAIN-OF-CUSTODY RECORDS**



Our Quality Control Is Your Quality Assurance

## ANALYTICAL REPORT

LOG NO: G97-12-071

Received: 03 DEC 97

Mailed:

Ms. Gabriele Baader  
Maness Environmental Services  
1101 E. Spring St.  
Long Beach, CA 90806

Project: 51298

### REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES					DATE SAMPLED
12-071-1	R1					01 DEC 97
12-071-2	R2					01 DEC 97
12-071-3	MW2-4A					01 DEC 97
12-071-4	MW2-4					01 DEC 97
12-071-5	MW2-3					01 DEC 97
PARAMETER	12-071-1	12-071-2	12-071-3	12-071-4	12-071-5	
MTBE (8020)						
Date Analyzed	12/10/97	12/10/97	12/10/97	12/10/97	12/10/97	
Dilution Factor, Times	1	1	1	1	1	
Methyl-tert-butylether, ug/L	<30	<30	<30	<30	<30	
Surrogates **						
a,a,a-Trifluorotoluene Rep., ug/L	54.8	49.2	41.1	54.4	50.2	
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0	50.0	50.0	

LOG NO: G97-12-071

Received: 03 DEC 97

Ms. Gabriele Baader  
 Maness Environmental Services  
 1101 E. Spring St.  
 Long Beach, CA 90806

Project: 51298

## REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
12-071-1	R1	01 DEC 97				
12-071-2	R2	01 DEC 97				
12-071-3	MW2-4A	01 DEC 97				
12-071-4	MW2-4	01 DEC 97				
12-071-5	MW2-3	01 DEC 97				
PARAMETER	12-071-1	12-071-2	12-071-3	12-071-4	12-071-5	
Halocarbons (8010)						
Date Analyzed	12/12/97	12/12/97	12/12/97	12/13/97	12/13/97	
Date Confirmed	12/12/97	12/12/97	12/12/97	12/13/97	12/13/97	
Dilution Factor, Times	1	1	1	1	1	
1,1,1-Trichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1,2,2-Tetrachloroethane, ug/L	<1	<1	<1	<1	<1	
1,1,2-Trichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1-Dichloroethane, ug/L	<1	<1	<1	<1	<1	
1,1-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloropropane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,3-Dichlorobenzene, ug/L	<1	<1	<1	<1	<1	
1,4-Dichlorobenzene, ug/L	<1	<1	<1	<1	<1	
Bromodichloromethane, ug/L	1.1	<0.5	<0.5	<0.5	<0.5	
Bromomethane, ug/L	<1	<1	<1	<1	<1	
Bromoform, ug/L	2.0	<0.5	<0.5	<0.5	<0.5	
Chlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Carbon Tetrachloride, ug/L	<1	<1	<1	<1	<1	
Chloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform, ug/L	<1	<1	<1	<1	<1	
Chloromethane, ug/L	<1	<1	<1	<1	<1	
Dibromochloromethane, ug/L	2.5	<0.5	<0.5	<0.5	<0.5	

LOG NO: G97-12-071

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REPORT OF ANALYTICAL RESULTS

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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
12-071-1	R1	01 DEC 97				
12-071-2	R2	01 DEC 97				
12-071-3	MW2-4A	01 DEC 97				
12-071-4	MW2-4	01 DEC 97				
12-071-5	MW2-3	01 DEC 97				
PARAMETER	12-071-1	12-071-2	12-071-3	12-071-4	12-071-5	
Freon 113, ug/L	<2	<2	<2	<2	<2	
Methylene chloride, ug/L	<2	<2	<2	<2	<2	
Trichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichlorofluoromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	0.61	
Vinyl chloride, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
trans-1,2-Dichloroethene, ug/L	<2	<2	<2	<2	<2	
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Surrogates **						
Bromochloromethane Reported, ug/L	49.6	51.8	53.9	53.7	50.4	
Bromochloromethane Theoretical, ug/L	50.0	50.0	50.0	50.0	50.0	

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## REPORT OF ANALYTICAL RESULTS

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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES				DATE SAMPLED	
12-071-1	R1				01 DEC 97	
12-071-2	R2				01 DEC 97	
12-071-3	MW2-4A				01 DEC 97	
12-071-4	MW2-4				01 DEC 97	
12-071-5	MW2-3				01 DEC 97	
PARAMETER	12-071-1	12-071-2	12-071-3	12-071-4	12-071-5	
Volatile Aromatics (8020)						
Date Analyzed	12/12/97	12/12/97	12/12/97	12/13/97	12/13/97	
Date Confirmed	12/12/97	12/12/97	12/12/97	12/13/97	12/13/97	
Dilution Factor, Times	1	1	1	1	1	
1,2-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,3-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
1,4-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzene, ug/L	5.2	2.9	<0.5	5 3.1 51	2.3	
Chlorobenzene, ug/L	<0.5	<0.5	<0.5	1 <0.5 <0.5	<0.5	
Ethylbenzene, ug/L	4.2	3.0	<0.5	3 3.0 22	2.5	
Toluene, ug/L	7.5	4.5	<0.5	5 5.1 30	4.1	
Total Xylene Isomers, ug/L	22	16	<1	10 16 71	14	
Surrogates **						
a,a,a-Trifluorotoluene Rep., ug/L	50.5	53.6	52.9	50.3	50.4	
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0	50.0	50.0	

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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
12-071-6	T1	01 DEC 97
PARAMETER	12-071-6	
MTBE (8020)		
Date Analyzed	12/09/97	
Dilution Factor, Times	1	
Methyl-tert-butylether, ug/L	<30	
Surrogates **		
a,a,a-Trifluorotoluene Rep., ug/L	54.5	
a,a,a-Trifluorotoluene Th., ug/L	50.0	



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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
12-071-6	T1	01 DEC 97
PARAMETER	12-071-6	
Halocarbons (8010)		
Date Analyzed	12/13/97	
Date Confirmed	12/13/97	
Dilution Factor, Times	1	
1,1,1-Trichloroethane, ug/L	<1	
1,1,2,2-Tetrachloroethane, ug/L	<1	
1,1,2-Trichloroethane, ug/L	<1	
1,1-Dichloroethane, ug/L	<1	
1,1-Dichloroethene, ug/L	<0.5	
1,2-Dichloroethane, ug/L	<0.5	
1,2-Dichlorobenzene, ug/L	<0.5	
1,2-Dichloropropane, ug/L	<0.5	
1,3-Dichlorobenzene, ug/L	<1	
1,4-Dichlorobenzene, ug/L	<1	
Bromodichloromethane, ug/L	<0.5	
Bromomethane, ug/L	<1	
Bromoform, ug/L	<0.5	
Chlorobenzene, ug/L	<0.5	
Carbon Tetrachloride, ug/L	<1	
Chloroethane, ug/L	<0.5	
Chloroform, ug/L	<1	
Chloromethane, ug/L	<1	
Dibromochloromethane, ug/L	<0.5	
Freon 113, ug/L	<2	
Methylene chloride, ug/L	<2	
Trichloroethene, ug/L	<0.5	
Trichlorofluoromethane, ug/L	<0.5	

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REPORT OF ANALYTICAL RESULTS

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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
12-071-6	T1	01 DEC 97
PARAMETER	12-071-6	
Tetrachloroethene, ug/L	<0.5	
Vinyl chloride, ug/L	<0.5	
cis-1,2-Dichloroethene, ug/L	<0.5	
cis-1,3-Dichloropropene, ug/L	<0.5	
trans-1,2-Dichloroethene, ug/L	<2	
trans-1,3-Dichloropropene, ug/L	<0.5	
Surrogates **		
Bromochloromethane Reported, ug/L	53.5	
Bromochloromethane Theoretical, ug/L	50.0	

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REPORT OF ANALYTICAL RESULTS

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LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
12-071-6	T1	01 DEC 97
PARAMETER	12-071-6	
Volatile Aromatics (8020)		
Date Analyzed	12/13/97	
Date Confirmed	12/13/97	
Dilution Factor, Times	1	
1,2-Dichlorobenzene, ug/L	<0.5	
1,3-Dichlorobenzene, ug/L	<0.5	
1,4-Dichlorobenzene, ug/L	<0.5	
Benzene, ug/L	<0.5	
Chlorobenzene, ug/L	<0.5	
Ethylbenzene, ug/L	<0.5	
Toluene, ug/L	<0.5	
Total Xylene Isomers, ug/L	<1	
Surrogates **		
a,a,a-Trifluorotoluene Rep., ug/L	50.9	
a,a,a-Trifluorotoluene Th., ug/L	50.0	

LOG NO: G97-12-071

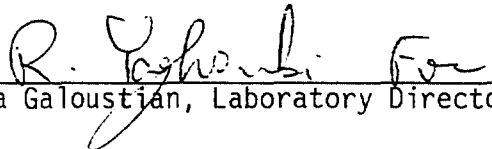
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Maness Environmental Services  
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REPORT OF ANALYTICAL RESULTS

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Greta Galoustian, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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ORDER PLACED FOR CLIENT: Maness Environmental Services 9712071 :  
: VOC ANALYTICAL : GLEN LAB : 09:35:19 06 JAN 1998 - P. 1 :  
=====

SAMPLES...		SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..	ID.NO
				ANALYZED				
9712071*1	R1		GAS.MTBE	12.10.97	8020	536-44	9711164	1030
			VH.8010	12.12.97	8010	536-34	973154	8171
			VA.8020	12.12.97	8020	536-34	973154	8171
9712071*2	R2		GAS.MTBE	12.10.97	8020	536-44	9711164	1030
			VH.8010	12.12.97	8010	536-34	973154	8171
			VA.8020	12.12.97	8020	536-34	973154	8171
9712071*3	MW2-4A		GAS.MTBE	12.10.97	8020	536-44	9711164	1030
			VH.8010	12.12.97	8010	536-34	973154	8171
			VA.8020	12.12.97	8020	536-34	973154	8171
9712071*4	MW2-4		GAS.MTBE	12.10.97	8020	536-44	9711164	1030
			VH.8010	12.13.97	8010	536-34	973154	8171
			VA.8020	12.13.97	8020	536-34	973154	8171
9712071*5	MW2-3		GAS.MTBE	12.10.97	8020	536-44	9711164	1030
			VH.8010	12.13.97	8010	536-34	973154	8171
			VA.8020	12.13.97	8020	536-34	973154	8171
9712071*6	T1		GAS.MTBE	12.09.97	8020	536-44	9711164	1030
			VH.8010	12.13.97	8010	536-34	973154	8171
			VA.8020	12.13.97	8020	536-34	973154	8171

\*\*\*

Notes: Equipment = VOC Analytical identification number for a particular piece of analytical equipment.

ID.NO = VOC Analytical employee identification number of analyst.

AQUEOUS SAMPLES

AQUEOUS SAMPLES	----- METHOD BLANK -----				----- LAB CONTROL -----									----- MATRIX QC -----								
					LCS		LCSD				RPD		RPD		MS		MSD					
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VH*973154 Method: 8010 - Halogenated Volatile Organics																						
1,1,1-Trichloroethane	ug/L	0	1	-	108	-	-	-	61	138	-	-	-	-	-	-	-	-	-	-	-	
1,1,2,2-Tetrachloroethane	ug/L	0	1	-	110	-	-	-	42	141	-	-	-	-	-	-	-	-	-	-	-	
1,1,2-Trichloroethane	ug/L	0	1	-	113	-	-	-	57	133	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethane	ug/L	0	1	-	112	-	-	-	65	130	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethene	ug/L	0	0.5	-	104	-	-	-	54	138	-	-	-	100	-	102	-	50	147	2	27	
1,2-Dichloroethane	ug/L	0	0.5	-	112	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichlorobenzene	ug/L	0	0.5	-	113	-	-	-	64	128	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichloropropane	ug/L	0	0.5	-	109	-	-	-	53	147	-	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	ug/L	0	1	-	114	-	-	-	63	130	-	-	-	-	-	-	-	-	-	-	-	
1,4-Dichlorobenzene	ug/L	0	1	-	117	-	-	-	69	133	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	ug/L	0	0.5	-	111	-	-	-	70	130	-	-	-	-	-	-	-	-	-	-	-	
Bromomethane	ug/L	0	1	-	116	-	-	-	39	133	-	-	-	-	-	-	-	-	-	-	-	
Bromoform	ug/L	0	0.5	-	108	-	-	-	53	133	-	-	-	-	-	-	-	-	-	-	-	
Chlorobenzene	ug/L	0	0.5	-	113	-	-	-	61	135	-	-	-	110	-	112	-	61	139	1	19	
Carbon Tetrachloride	ug/L	0	1	-	106	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	
Chloroethane	ug/L	0	0.5	-	137	-	-	-	46	137	-	-	-	-	-	-	-	-	-	-	-	
Chloroform	ug/L	0	1	-	116	-	-	-	65	133	-	-	-	-	-	-	-	-	-	-	-	
Chloromethane	ug/L	0	1	-	188	Q	-	-	1	160	-	-	-	-	-	-	-	-	-	-	-	
Dibromochloromethane	ug/L	0	0.5	-	108	-	-	-	65	127	-	-	-	-	-	-	-	-	-	-	-	
Freon 113	ug/L	0	2	-	108	-	-	-	37	152	-	-	-	-	-	-	-	-	-	-	-	
Methylene chloride	ug/L	0	2	-	110	-	-	-	57	137	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethene	ug/L	0	0.5	-	109	-	-	-	63	141	-	-	-	111	-	112	-	52	162	1	43	
Trichlorofluoromethane	ug/L	0	0.5	-	107	-	-	-	42	154	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethene	ug/L	0	0.5	-	113	-	-	-	64	139	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	ug/L	0	0.5	-	112	-	-	-	40	144	-	-	-	-	-	-	-	-	-	-	-	
cis-1,2-Dichloroethene	ug/L	0	0.5	-	109	-	-	-	63	129	-	-	-	-	-	-	-	-	-	-	-	
cis-1,3-Dichloropropene	ug/L	0	0.5	-	113	-	-	-	65	132	-	-	-	-	-	-	-	-	-	-	-	
trans-1,2-Dichloroethene	ug/L	0	2	-	107	-	-	-	59	139	-	-	-	-	-	-	-	-	-	-	-	
trans-1,3-Dichloropropene	ug/L	0	0.5	-	110	-	-	-	60	130	-	-	-	-	-	-	-	-	-	-	-	
[Bromochloromethane]	Percent	101	-	-	100	-	-	-	69	140	-	-	-	102	-	99	-	69	140	-	-	

AQUEOUS SAMPLES

AQUEOUS SAMPLES				METHOD BLANK				LAB CONTROL						MATRIX QC											
				LCS		LCSD		RPD		RPD		MS		MSD		RPD				RPD					
UNITS				RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	
Batch: VA*973154 Method: 8020 - Aromatic Volatile Organics																									
1,2-Dichlorobenzene				ug/L	0	0.5	-	103	-	-	-	75	121	-	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene				ug/L	0	0.5	-	104	-	-	-	78	123	-	-	-	-	-	-	-	-	-	-	-	
1,4-Dichlorobenzene				ug/L	0	0.5	-	105	-	-	-	77	123	-	-	-	-	-	-	-	-	-	-	-	
Benzene				ug/L	0	0.5	-	106	-	-	-	80	126	-	-	-	104	-	108	-	67	141	4	20	-
Chlorobenzene				ug/L	0	0.5	-	106	-	-	-	80	122	-	-	-	105	-	106	-	67	147	1	25	-
Ethylbenzene				ug/L	0	0.5	-	106	-	-	-	81	122	-	-	-	-	-	-	-	-	-	-	-	
Toluene				ug/L	0.28	0.5	-	107	-	-	-	81	125	-	-	-	107	-	108	-	74	133	1	21	-
Total Xylene Isomers				ug/L	0.17	1	-	105	-	-	-	84	118	-	-	-	-	-	-	-	-	-	-	-	
[a,a,a-Trifluorotoluene]				Percent	99	-	-	103	-	-	-	77	130	-	-	-	101	-	102	-	77	130	-	-	-
Batch: GAS*9711164 Method: 8020 - Aromatic Volatile Organics																									
Methyl-tert-butylether				ug/L	0	30	-	92	-	-	-	58	147	-	-	-	134	-	135	-	53	177	1	30	-
[a,a,a-Trifluorotoluene]				Percent	118	-	-	107	-	-	-	77	130	-	-	-	119	-	118	-	77	130	-	-	-

: SURROGATE RECOVERIES :  
: BC ANALYTICAL : GLEN LAB : 09:47:08 06 JAN 1998 - P. 1 :  
=====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
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9712071\*1

8020	a,a,a-Trifluorotoluene	Re9711164	12/10/97	54.8	50.0	110	
8010	Bromochloromethane	973154	12/12/97	49.6	50.0	99	
8020	a,a,a-Trifluorotoluene	Re973154	12/12/97	50.5	50.0	101	

9712071\*2

8020	a,a,a-Trifluorotoluene	Re9711164	12/10/97	49.2	50.0	98	
8010	Bromochloromethane	973154	12/12/97	51.8	50.0	104	
8020	a,a,a-Trifluorotoluene	Re973154	12/12/97	53.6	50.0	107	

9712071\*3

8020	a,a,a-Trifluorotoluene	Re9711164	12/10/97	41.1	50.0	82	
8010	Bromochloromethane	973154	12/12/97	53.9	50.0	108	
8020	a,a,a-Trifluorotoluene	Re973154	12/12/97	52.9	50.0	106	

9712071\*4

8020	a,a,a-Trifluorotoluene	Re9711164	12/10/97	54.4	50.0	109	
8010	Bromochloromethane	973154	12/13/97	53.7	50.0	107	
8020	a,a,a-Trifluorotoluene	Re973154	12/13/97	50.3	50.0	101	

9712071\*5

8020	a,a,a-Trifluorotoluene	Re9711164	12/10/97	50.2	50.0	100	
8010	Bromochloromethane	973154	12/13/97	50.4	50.0	101	
8020	a,a,a-Trifluorotoluene	Re973154	12/13/97	50.4	50.0	101	

9712071\*6

8020	a,a,a-Trifluorotoluene	Re9711164	12/09/97	54.5	50.0	109	
8010	Bromochloromethane	973154	12/13/97	53.5	50.0	107	
8020	a,a,a-Trifluorotoluene	Re973154	12/13/97	50.9	50.0	102	



: SURROGATE RECOVERIES :  
: BC ANALYTICAL : GLEN LAB : 09:47:09 06 JAN 1998 - P. 1 :  
=====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
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~~B~~712775\*1\*MB

8015M	a,a,a-Trifluorotoluene	Re9711164	12/09/97	58.9	50.0	118	
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~~B~~712923\*1\*MB

8010	Bromochloromethane	973154	12/12/97	50.7	50.0	101	
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~~B~~712924\*1\*MB

<del>8</del> 020	a,a,a-Trifluorotoluene	Re973154	12/12/97	49.7	50.0	99	
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~~C~~7121513\*1\*LC

<del>8</del> 015M	a,a,a-Trifluorotoluene	Re9711164	12/09/97	53.3	50.0	107	
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~~C~~7121513\*1\*LT

<del>8</del> 015M	a,a,a-Trifluorotoluene	Re9711164	12/09/97	50.0	50.0	100	
-------------------	------------------------	-----------	----------	------	------	-----	--

~~C~~7121793\*1\*LC

<del>8</del> 010	Bromochloromethane	973154	12/12/97	50.0	50.0	100	
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~~C~~7121793\*1\*LT

<del>8</del> 010	Bromochloromethane	973154	12/12/97	50.0	50.0	100	
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~~C~~7121794\*1\*LC

<del>8</del> 020	a,a,a-Trifluorotoluene	Re973154	12/12/97	51.4	50.0	103	
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~~C~~7121794\*1\*LT

<del>8</del> 020	a,a,a-Trifluorotoluene	Re973154	12/12/97	50.0	50.0	100	
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# VOC Analytical Laboratories

☐ 1212 E. KATELLA AVE.  
ANAHEIM, CA 92805  
☐ 1085 SHARY CIRCLE  
CONCORD, CA 94518

☐ 801 WESTERN AVE.  
GLENDALE, CA 91201  
☐ 4411 S. BROADWAY Ste. D-1  
PHOENIX, AZ 85040

## Chain of Custody Record

V.O.C. Log # \_\_\_\_\_

Quote # \_\_\_\_\_

Company Name <u>MARCO CORP.</u>						LAB ANALYSIS														Matrix Codes *													
Address <u>101 E. CEDAR ST.</u>						Sample															Field Filtered (Y/N)	Integrity OK (Y/N)	SD Solid Waste	OL Oil									
City <u>LEON BEACH</u> State <u>CA</u> Zip <u>90705</u>						pH													GW Ground Water	SL Sludge													
Attn: <u>GABRIEL GARCIA</u> Fax # <u>661-304-1045</u>						Pres Codes													EFF Effluent	SO Soil Sediment													
Project Name / Number <u>61298</u> PO# _____						Parameters	<u>12/19/97</u>	<u>12/19/97</u>												AFW Analyte Free H <sub>2</sub> O			AO Aqueous										
Sampler Name / Signature <u>JE</u> Phone # <u>(662) 575-9732</u>																																WW Waste Water	NA Nonaqueous
#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	# of Cont																												DW Drinking Water
																			SU Surface Water	O Other <small>(Please Specify)</small>													
																				Pres Codes													
																				A- None E- HCl													
																				B- HNO <sub>3</sub> F- MeOH													
																				C- H <sub>2</sub> SO <sub>4</sub> I- Ice													
																				D- NaOH O- Other													
																				REMARKS													
-1	K1	12/19/97	0930	GW	3		X	X														Blank											
-2	K2		1200		3																	Blank											
-3	MW2-4A		0900		3																	Blank											
-4	MW2-4		1120		6																	Blank											
-5	MW2-3		1245		6																	Blank											
-6	T1		1630		2																	Blank											
-7																																	
-8																						Blank											
-9																						Blank											
-10																						Blank											

Short Hold Y _____ N _____		Ice Y _____ N _____		Item	Relinquished by <u>[Signature]</u>	Date <u>12/19/97</u>	Time <u>1700</u>	Received by <u>[Signature]</u>	Date <u>12/19/97</u>	Time <u>1000</u>
QA/QC Report Level None _____ 1 _____ 2 _____ 3 _____ Other _____				COC OK Y _____ N _____	Initials					
F.A.T. Request		RUSH	Custody Seals	Temp Control	Local Job					
Standard		Date required	Y _____ N _____	_____°C	Y _____ N _____					

C.O.C. # 1000000

**APPENDIX C**

**SUMMARY OF GROUNDWATER LABORATORY  
ANALYTICAL RESULTS**

SUMMARY OF GROUNDWATER LABORATORY ANALYTICAL RESULTS  
EL MONTE OPERABLE UNIT, PARTIAL REMEDIAL INVESTIGATION  
SAN GABRIEL VALLEY, LOS ANGELES, CALIFORNIA

Analytes Date Sampled	EPA Method	Initial Round					First Quarter		Second Quarter			Third Quarter					Detection Limit (ppb)	MCL (ppb)
		2/20 & 28/97					5/28/97		9/4/97			12/1/97						
		MW2-3		MW2-4		Rinsate	MW2-3	MW2-4	MW2-3	MW2-4	Rinsate	MW2-3	MW2-4 before purging	MW2-4	Rinsate before purging	Rinsate after purging		
		Original	Dup.	Original	Dup.													
Benzene	8021A/8020	ND	ND	ND	ND	ND	ND	ND	11	51	31	2.3	ND	3.1	5.2	2.9	0.5	1
Bromodichloromethane	8021A/8010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	0.5	Unregulated*
Bromoform	8021A/8010	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	2	ND	0.5	Unregulated*
Chloroform	8021A/8010	1.3	1.2	ND	ND	ND	1.7	ND	0.86	ND	ND	ND	ND	ND	ND	ND	0.5-1.0	Unregulated*
Dibromochloromethane	8021A/8010	ND	ND	ND	ND	0.86	ND	ND	ND	ND	1.6	ND	ND	ND	2.5	ND	0.5	Unregulated*
Ethylbenzene	8021A/8020	ND	ND	ND	ND	ND	2.1	2.2	9.2	22	18	2.5	ND	3	4.2	3	0.5	700
Naphthalene	8021A/8010	ND	ND	ND	ND	ND	ND	ND	6.1	12	9.7	NA	NA	NA	NA	NA	2	Unregulated*
n-Propylbenzene	8021A/8010	ND	ND	ND	ND	ND	ND	ND	ND	2.2	2.1	NA	NA	NA	NA	NA	2	Unregulated*
Toluene	8021A/8020	1.2	1.2	ND	ND	ND	8.8	8.9	8.9	30	21	4.1	ND	5.1	7.5	4.5	0.5	150
Tetrachloroethene	8021A/8010	1.1	1.1	ND	ND	ND	1.1	ND	0.65	ND	ND	0.61	ND	ND	ND	ND	0.5	5
Trichloroethene	8021A/8010	ND	ND	ND	ND	ND	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	5
1, 2, 4-Trimethylbenzene	8021A/8010	ND	ND	ND	ND	ND	2.3	2.9	12	23	20	NA	NA	NA	NA	NA	2	Unregulated*
1, 3, 5-Trimethylbenzene	8021A/8010	ND	ND	ND	ND	ND	ND	ND	2.4	5.1	3.6	NA	NA	NA	NA	NA	2	Unregulated*
Total Xylenes	8021A/8020	0.95	0.95	ND	ND	ND	12	13	30	71	55	14	ND	16	22	16	0.5	1,750

Notes:

MCL= Maximum Contaminant Levels, California Drinking Water Standards, 1994  
 ppb= parts per billion (µg/L)  
 Dup.= duplicate  
 ND= not detected at or above laboratory detection limits  
 NA= not available  
 bold= above MCL  
 \* = monitoring required, California Drinking Water Standards, 1994  
 All other analytes are ND at or above laboratory detection limits stated in official laboratory reports